

- the phase 1 upgrade of LHC:

- improved measurements of the top quark mass, top quark couplings, rare decays, searches for New Physics related to tops

- the phase 2 upgrade of LHC:

- ultimate precision reach for theoretically clean top quark mass, that matches well with the achievable precision on the W-boson mass;
- measurement of top Yukawa coupling with high precision in the di-photon channel;
- improved reach (up to a factor 2) for top quark couplings, rare decays and masses of stops, tops and resonances decaying to top pairs
- Large top event samples available in the future will allow the study of new observables such as angular correlations or asymmetries that can uncover subtle new physics effects which may not be accessible otherwise.

- Linear e^+e^- collider (250 GeV):

- tqZ , tq -photon flavor changing coupling

- Linear e^+e^- collider (500 GeV):

- top mass to 100 MeV and top width to a few percent via the threshold scan
 - top couplings to Z, gamma, gluon with $O(1\%)$ precision
 - top Yukawa can be measured to $O(10\%)$
 - improved sensitivity to flavor changing top quark decays

- Linear e^+e^- collider (1 TeV)

- top Higgs Yukawa coupling to 4% (significantly better than HL LHC)
- improved measurements of top quark couplings
- studies of stops and top partners if kinematically accessible

- Multi-TeV linear e^+e^- collider (CLIC)

- studies of stops and top partners if kinematically accessible

- Multi-TeV muon collider

- all of the above

- circular e^-e^+ collider (TLEP)

- top quark mass measurement from threshold scan with perhaps better than 100 MeV uncertainty
- top width with a few percent uncertainty
- indirect measurement of top Yukawa with 30–40 % uncertainty

- 33 TeV LHC:

- improved reach of New Physics associated with tops